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Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of)	
)	
Section 68.4 (a) of the Commission's Rules)	WT Docket No. 01-309
Governing Hearing Aid-Compatible)	RM-8658
Telephones)	
)	

To: The Commission

COMMENTS

Cingular Wireless LLC ("Cingular"), by its attorneys, hereby submits these comments in response to the *Notice of Proposed Rule Making* ("NPRM")¹ in the captioned docket. The *NPRM* seeks comment on whether the public mobile service phone exemption from the Hearing Aid Compatibility Act of 1988 ("HAC Act")² should be eliminated.³

SUMMARY

The HAC Act and corresponding Commission regulations exempt public mobile service handsets from the requirement that phones manufactured in, or imported to, the United States be hearing aid compatible, and impose no obligations on service providers and retailers. The Commission should retain this exemption until compliance with the HAC Act becomes technologically feasible for public mobile service handsets across all mobile environments. If the exemption is eliminated or modified, the responsibility for addressing and complying with the

¹ *Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones*, WT Docket No. 01-309, *Notice of Proposed Rule Making*, FCC 01-320 (rel. Nov. 14, 2001).

² Hearing Aid Compatibility Act of 1988, Pub. L. 100-394, Aug. 16, 1988, 102 Stat. 976, codified at 47 U.S.C. § 610.

³ *NPRM* at ¶ 1.

HAC Act should rest with handset manufacturers rather than CMRS carriers who do not manufacture equipment.

I. THE COMMISSION SHOULD NOT REVOKE THE HAC ACT EXEMPTION FOR PUBLIC MOBILE SERVICE HANDSETS BECAUSE COMPLIANCE REMAINS TECHNOLOGICALLY INFEASIBLE

Currently, all public mobile service handsets are exempt from the requirements of the HAC Act, which requires that all telephones manufactured or imported into the United States “provide internal means for effective use with hearing aids.”⁴ The Commission may eliminate the exemption, however, if (i) such revocation or limitation is in the public interest, (ii) continuation of the exemption would have an adverse effect on hearing-impaired individuals, (iii) compliance with the rule is technologically feasible, and (iv) compliance would not increase costs to such an extent that the telephones to which the exemption applies could not be successfully marketed.⁵

If the Commission lifts the exemption, manufacturers may be required by statute and regulation to do the impossible – ensure the effective use of handsets with hearing aids. Courts have determined that “impossible requirements imposed by an agency are perforce unreasonable”⁶ and that the “law does not compel the doing of impossibilities.”⁷ In order for the Commission to establish that its rules are “based on a consideration of the relevant factors” and

⁴ 47 U.S.C.A. § 610(b)(1)(B) (West Supp. 2001); 47 C.F.R. § 68.4(a)(3) (2001).

⁵ 47 C.F.R. § 68.4(a)(4) (2001).

⁶ *Alliance for Cannabis Therapeutics v. DEA*, 930 F.2d 936, 940 (D.C. Cir. 1991).

⁷ *Hughey v. JMS Development Corp.*, 78 F.3d 1523, 1530 (11th Cir. 1996), *quoting* Black’s Law Dictionary 912 (6th ed. 1990) (“*Lex non cogit ad impossibilia*: The law does not compel the doing of impossibilities”).

not “a clear error of judgment,”⁸ the “record must establish that the required technology is feasible, not merely *possibly* feasible.”⁹ Moreover, it is a fundamental principle of administrative law that agency action must be:

based on a consideration of the relevant factors . . . and rest on reasoned decision making in which the agency must examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made.¹⁰

Until the record clearly demonstrates that it is technologically and economically feasible for manufacturers to produce hearing aid compatible public mobile service handsets for all mobile environments, the Commission should retain the exemption.

The HAC Act requires that all non-exempt telephones “provide internal means for effective use with hearing aids that are designed to be compatible with telephones which meet established technical standards for hearing aid compatibility.”¹¹ Although wireline phones have become universally hearing aid compliant, wireless handsets are technologically distinct and pose unique problems. Many hearing aid users are currently unable to use digital wireless handsets for two reasons: (i) radio frequency (“RF”) interference and (ii) incompatibility issues. Thus, for example, requiring a wireless handset to be “compatible” with a hearing aid will not

⁸ *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402, 415-16 (1971).

⁹ *Bunker Hill Co. v. EPA*, 572 F.2d 1286, 1301 (9th Cir. 1977), *cert. denied*, 417 U.S. 921 (1974) (emphasis in original); *see Essex Chemical Corp. v. Ruckelshaus*, 486 F.2d 427, 433 (D.C. Cir. 1973), *cert. denied*, 416 U.S. 969 (1974). (noting that the feasibility determination must be based on record evidence, not a “subjective understanding of the problem or ‘crystal ball inquiry’”).

¹⁰ *United States Telecom Ass’n v. FCC*, 227 F.3d 450, 461 (D.C. Cir. 2000) (citing *Overton Park, Inc.*, 401 U.S. at 416 (1971); *Motor Vehicle Mfrs. Ass’n v. State Farm Mutual Auto. Ins. Co.*, 463 U.S. 29, 43 (1983)); *see also Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 168 (1962).

¹¹ 47 U.S.C.A. § 610(B)(1)(b) (West Supp 2001).

eliminate hearing aid susceptibility to interference from the RF emissions required for wireless communications. Unless and until both RF and incompatibility issues are resolved, compliance with the HAC Act will remain technologically infeasible.

As the Commission is aware, mobile phones are designed to transmit RF signals and hearing aids are able to detect these RF signals. The unintended detection of RF signals by hearing aids often causes audible interference. Hearing aids are “receivers” and, in the past, when receiver technologies have been prone to interference, the Commission has required receiver equipment manufacturers to modify their technologies to function in an RF rich environment, *i.e.*, via RF hardening and filter modifications.¹² Unless hearing aids are properly RF hardened,¹³ they will be susceptible to interference in the presence of RF signals emitted by mobile handsets and other devices, including radios and televisions.¹⁴

Working together, handset and hearing aid manufacturers may identify modifications other than RF hardening that are necessary to achieve compatibility and usability. At present, digital mobile handsets are known to be incompatible with some hearing aids containing “T-coils”, which are used to couple hearing aids with analog telephones and analog mobile handsets.

¹² See *Amendment of the Commission's Rules to Establish Part 27, the Wireless Communications Service (“WCS”)*, GN Docket No. 96-228, *Memorandum Opinion and Order*, FCC 97-112, 12 FCC Rcd 3977 (rel. April 2, 1997) (placing burden on receiver manufacturers after short transition period).

¹³ RF hardening against interference can be attained by utilizing circuit designs that are more immune to external RF interference and/or by shielding the device to prevent RF ingress.

¹⁴ A study prepared by the Center for the Study of Wireless Electromagnetic Compatibility at the University of Oklahoma showed that RF emissions interfered in many instances with hearing aids, regardless of air interface. “Evaluation of the Interaction Between Wireless Phones and Hearing Aids,” University of Oklahoma Center for the Study of Wireless Electromagnetic Compatibility (1996-99), available at, <http://www.ou.edu/engineering/emc/projects/ha1.html>. Hearing aid users may also have continued difficulty with new and emerging technologies.

T-coils receive transmissions but cannot discriminate between electromagnetic energy the device is designed to receive and electromagnetic emissions from digital wireless handsets that the device was not designed to handle. As a result, when a digital handset and a "T-coil" hearing aid are in close proximity, a distracting noise audible to the hearing aid wearer is generated.

In an effort to overcome this incompatibility, the American National Standards Institute ("ANSI") developed the C63.19 testing standard to begin identifying which handsets are most likely to be useable with particular hearing aids. This standard, however, has not been thoroughly tested to determine its reliability and validity.¹⁵ Cingular urges the Commission to require handset manufacturers to conduct joint testing with hearing aid manufacturers to verify the validity of this standard across all handsets and hearing aid environments.¹⁶ Upon successful completion of these joint tests, the Commission should adopt a phased-in approach to provide adequate time for the implementation of any additional testing protocols and reporting procedures for handset manufacturers.

II. IF THE EXEMPTION IS MODIFIED OR ELIMINATED, THE COMMISSION SHOULD EXERCISE JURISDICTION OVER MOBILE HANDSET MANUFACTURERS VIA THE TYPE-ACCEPTANCE PROCESS TO ENSURE HEARING AID COMPATIBLE HANDSET AVAILABILITY

Wireless carriers do not manufacture handsets or hearing aids and therefore cannot -- by regulation or otherwise -- be held responsible for the interference and compatibility concerns currently limiting the hearing aid community's enjoyment of the benefits of mobile phone service. If the public mobile service exemption is modified or eliminated, the Commission

¹⁵ See Cellular Telecommunications and Internet Association *Ex Parte* Presentation, WT Docket No. 01-108 (Oct. 10, 2001).

should exercise jurisdiction over handset manufacturers through the RF equipment type-acceptance approval process to ensure that manufacturers produce hearing aid compatible handsets.¹⁷ This is the approach envisioned by both the HAC Act and the implementing regulations contained in Part 68 of the Commission's rules.¹⁸

In the event the exemption is eliminated, the Commission should *not* require all public mobile handsets to be HAC Act compliant. Congress specifically recognized that wireless devices pose unique problems for hearing aid users.¹⁹ Unlike traditional phones, wireless handsets vary tremendously in size and functionality. As the Commission has recognized, the size of a handset alone may prohibit HAC Act compliance and the public interest would not be served by prohibiting the sale of handsets desired by the general public.²⁰ To ensure the widespread availability of HAC Act compliant handsets to the hearing aid community, the Commission should require each handset manufacturer to produce at least one hearing aid compatible model and external compatibility alternatives, like accessories. Under this approach, mobile handset manufacturers would be required to certify as part of the type-acceptance process that their current product lines contain HAC Act compliant handset models. The Commission

¹⁶ Hearing aid manufacturers also must be required to participate in joint testing, either by the FCC pursuant to its ancillary jurisdiction or by the Food and Drug Administration or some other agency.

¹⁷ See 47 C.F.R. §§ 2.901-2.1093 (2001). As noted *infra*, hearing aid manufacturers must also be involved to produce hearing aid compatible handsets.

¹⁸ 47 U.S.C.A. § 610(b)(1)(B) (West Supp. 2001) (requiring that phones manufactured or imported for use in the United States be hearing aid compatible, but imposing no obligations on wireless service providers); 47 C.F.R. § 68.4(a)(1),(3) (2001) (implementing the HAC Act).

¹⁹ See H.R. Rep. No. 100-674, at 9 (1988).

²⁰ *NPRM* at ¶¶ 20, 31.

could withhold type-acceptance for new handset models developed by manufacturers that cannot supply the required certification.

In addition to the type-acceptance process, the Commission can use its forfeiture authority to ensure that manufacturers produce hearing aid compatible handset models.²¹ Section 503(b)(1) of the Communications Act of 1934 (“Act”) permits the Commission to assess a forfeiture against any person who willfully or repeatedly fails to comply with any provision of the Act or any rule, regulation, or order issued by the Commission. If a handset manufacturer refused to produce HAC Act compliant handsets in violation of the rules, an exercise of forfeiture authority would be appropriate. The Commission’s type-acceptance jurisdiction and forfeiture authority are more than adequate to ensure compliance with the Commission’s rules by handset equipment manufacturers.

III. THE FCC NEEDS THE COOPERATION OF OTHER AGENCIES SUCH AS THE FDA AND DEPARTMENT OF EDUCATION TO EFFECTIVELY ADDRESS HEARING AID COMPATIBILITY WITH DIGITAL WIRELESS TECHNOLOGIES

Imposing hearing aid compatibility obligations on handset manufacturers will not resolve the incompatibility between digital wireless handsets and hearing aids. Mobile handsets and hearing aids are linked through a symbiotic relationship and, therefore, a solution to interference problems can only be obtained through the joint efforts of handset manufacturers and hearing aid manufacturers. Unless the Commission intends to assert ancillary jurisdiction over hearing aids as “receivers,” however, it lacks regulatory authority over hearing aid manufacturers. Accordingly, Cingular urges the Commission to work with the Food and Drug Administration (“FDA”), the agency tasked with regulating hearing aids, to ensure that hearing aids are

²¹ See 47 U.S.C.A. § 503(b) (West Supp. 2001).

adequately hardened against RF interference.²² The FDA has taken measures to protect the interests of the hearing aid community and has promulgated regulations governing the sale and distribution of hearing aids.²³

In addition, the Commission should seek the assistance of the Department of Education's National Institute on Disability and Rehabilitation Research ("NIDRR") which sponsors research through Rehabilitative Engineering Research Center ("RERC") grants. NIDRR-sponsored RERCs are recognized for conducting some of the most innovative and high impact assistive technology research for the Federal Government. For instance, the RERC on telecommunications has been an integral player in efforts to address TTY Access to E911. With adequate funding and support, RERCs appear to be uniquely situated to identify and document handset and hearing aid manufacturer's methods for addressing hearing aid usability with digital wireless technologies. In addition, there may be other agencies the FCC can work with to improve access for people with hearing loss.

IV. THE COMMISSION SHOULD ONLY IMPOSE LIMITED OBLIGATIONS ON CMRS CARRIERS IF THE HAC ACT EXEMPTION IS MODIFIED OR ELIMINATED

If the Commission determines that current industry efforts are insufficient to address the needs of hearing aid users and that the HAC Act exemption should be modified or eliminated, CMRS carriers should only be subject to very limited requirements. Specifically, CMRS carriers should only be required (i) to offer hearing aid compatible handsets or accessories once they become available from manufacturers, and (ii) to supply information to consumers regarding usability between specific handset models and hearing aids. CMRS carriers should not be

²² The cooperative relationship between the FCC and the FDA would be similar to that between the FCC and the Federal Aviation Administration to ensure air safety.

²³ See 21 C.F.R. §801.420 (2001).

required to compile and submit burdensome reports regarding compliance. The Commission's complaint procedures and forfeiture authority are sufficient to ensure compliance with any obligations ultimately imposed on the CMRS industry. As discussed above, the public interest would not be served by requiring all handsets to be HAC Act compliant.

A. CMRS Carriers Should Be Required to Offer Hearing Aid Compatible Handsets or Accessories Once They Become Available from Manufacturers

In order to ensure that hearing aid compatible handsets are accessible to the hearing aid community, CMRS carriers should be required to offer hearing aid compatible handsets or accessories once they become available from manufacturers. Wireless carriers should work with equipment manufacturers and hearing aid users to develop plans for communicating information and offering these handsets and accessories. Under this approach, wireless carriers would offer both HAC Act compliant and non-compliant handsets, but would offer hearing aid compatible models or accessories, to the extent available from manufacturers, to provide hearing aid users with product choice.

B. CMRS Carriers Should Be Required to Supply Information Obtained From Manufacturers Regarding Compatibility Between Various Handsets and Hearing Aid Models

Information is critically important in ensuring that hearing aid users are able to choose handsets that work best with the hearing aids they use. Cingular urges the Commission to require manufacturers to supply detailed information regarding handset and hearing aid compatibility to CMRS carriers. CMRS carriers, in turn, should be required to pass this information along to hearing aid users upon request. Hearing aid users would then be able to make informed decisions about service providers and handsets. In particular, a hearing aid user would have the information necessary to choose a service provider that offers the handset that is most compatible with the user's hearing aid.

C. The Commission Should Not Require CMRS Carriers to Submit Reports

Cingular opposes any requirement that CMRS carriers be required to submit reports regarding compliance with the HAC Act and related FCC regulations.²⁴ Under the Paperwork Reduction Act of 1995, the Commission has an obligation to reduce paperwork burdens associated with all proposed information collections.²⁵ In this case, any reporting requirement should be imposed on handset manufacturers, rather than CMRS carriers, as they will have the relevant information regarding handset hearing aid compatibility.

Finally, reporting requirements are not necessary to ensure that CMRS carriers comply with any regulations that may be imposed by the Commission. It is in a carrier's best interest to offer equipment that makes its service usable by its existing and potential customers. In addition, if CMRS carriers are required to offer some hearing aid compatible handsets and fail to do so, a consumer could file a complaint. The Commission should clarify, however, that Section 208 would govern such complaints. These complaint procedures, along with the Commission's Section 503 forfeiture authority, are more than sufficient to ensure compliance.²⁶

CONCLUSION

Cingular urges the Commission to retain the public mobile service exemption from the HAC Act since eliminating the exemption will not resolve the technical issues necessary to make hearing aids work with digital wireless technologies. If the exemption is modified or eliminated, however, the Commission should make clear that responsibility for compliance with the HAC

²⁴ See *NPRM* at ¶¶32-33.

²⁵ The Paperwork Reduction Act of 1995, Pub. L. No. 104-13.

²⁶ 47 U.S.C.A. §§ 208, 503 (West Supp. 2001). Alternatively, the Commission could rely on the complaint procedures set forth in Subpart E of Part 68 of the Commission's rules. See *NPRM* at ¶34.

